REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and discussion presented herein.

1.   Rejection of Claims 1-2, 16, 40, and 48 under 35 U.S.C. § 112.

Claims 1-2, 16, 40, and 48 are objected to for reciting the limitations "TCP/IP. FEC, and MTU", applicant is requested to identity meaning of each.

Applicant has amended the relevant claims, expanding the abbreviations accordingly as they were recited in the specification.

2.   Rejection of Claims 10-12 under 35 U.S.C. § 112.

Claims 10-12 are rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In Claim 10, the limitation "the ACK suppression system" on lines 1-2 of Claim 10 is asserted to have insufficient antecedent basis.

Claims 11-12 are rejected for the same reasoning as Claim 10.

Applicant has amended Claim 10 to correct the typographical error in the antecedent claim reference in the preamble, which has been amended from Claim 2, to Claim 3. Claims 11-12 depend from Claim 10 and are thus corrected.

3.   Rejection of Claims 1-2, 4-7, 16-24, 36, 39-45, and 48 under 35 U.S.C. § 103(a).

Claims 1-2, 4-7, 16-24, 36, 39-45, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eccles et al. (U.S. Pat. No. 7,376,091), in view of Tong et al. (US Publ. No. 2002/0150040).

Independent Claims 1, 2, 16, and 36 are directed to apparatus for performing a Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfers over an IEEE 802.11 network. After carefully considering the grounds for rejection, the Applicant responds as follows.

(a) Claim 1. The rejection posits that the Eccles reference teaches all aspects of Claim 1, with the exception that Eccles *"fails to explicitly teach performing partial packet retransmissions."*

Shortcomings of Eccles Reference

However, the above statement in support of the rejection is incorrect as even in a general sense there are a number of aspects of the cited Eccles reference that do not comport with the teachings recited in the claims of the instant application.

The Eccles reference teaches a bridge <u>between an 802.11 network and a cellular network</u> and then <u>between the cellular network and the internet</u>. The claims of the instant application are not directed to the cellular network, they have nothing to do with a cellular network. In addition, the Eccles reference teaches <u>protocol conversions</u> of the packets from 802.11 to the cellular network, and then from the cellular network to the internet. The instant application does not require conversions of the packets, as the IP packet structure is used over IEEE 802.11 as it is specified. The structure, object and operating principles of the Eccles reference are thus distinct from those of the present invention. These differences are readily seen in the abstract of the Eccles reference.

> *"A network access point can serve as <u>a bridge between an 802.11 network and a cellular network</u>. The network access point can receive packets from the 802.11 network <u>and reformat the packets for transmission over the cellular network</u>. Similarly, the network access point can <u>receive packets from the cellular network and reformat them for transmission over the 802.11 network</u>."*

In supporting the rejection, Applicant respectfully submits that the particulars of Applicant's claims have NOT been fully considered. An attempt is made in the rejection to distill down Applicant claims into some generic bridging involving 802.11; however, this is not what the claims are directed towards as can be seen from a plain reading of the claims at issue.

The instant application utilizes partial retransmission or FEC by *"utilizing unused packet space"* for the FEC and partial retransmission. There is a difference in the size of the MTU between the 802.11 standard and the commonly used Ethernet. The present invention utilizes Ethernet packet structures (thus having the Ethernet MTU) with additions of FEC and checksums for use within the 802.11 transmission.

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The Eccles reference is not even directed towards "*performing a Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfers over an IEEE 802.11 network.*" Eccles describes conventional bridging being performed wherein the 802.11 utilizes its packet form, the cellular network utilizes its packet form, and the internet uses its own packet form; the bridging must recreate the packets, which causes the undue overhead as discussed in relation with the instant application. That Eccles is conventional in these respects will be clear to anyone of ordinary skill in the art because the Eccles reference does not even make mention of "MTU", "maximum transmission unit", "transmission unit" (a search of text turns up nothing for these search strings); and Applicant finds no teachings of the concepts thereof in the reference. Although MTU is known on many systems, that fact that Eccles does not even discuss it is clear indication that no modifications are being made in regard to the data packet transfer.

One of the objects of the invention is a reduction of the overhead associated with packet fragmentation that requires creating new IP and MAC headers for each fragment of the fragmented packet, as discussed in paragraph [0018] of the instant application.

The rejection then attempts to bring in the Tong reference on the basis of it teaching some form of partial packet retransmission. However, as will be recognized this does not overcome the many shortcomings of the Eccles reference, while it has many additional difficulties as will be discussed.

Thus, it is clear even from a general discussion, that the "combination" of references do not teach all aspects of the present invention, wherein it cannot obviate the claims of the instant application.

<u>Claim 1</u>. Independent Claim 1 is directed to "*An apparatus for performing a Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfers over an IEEE 802.11 network.*" Right away in reading the preamble we find a problem with support for the rejection. Eccles teaches interfacing a cellular network with both an 802.11 network and an IP network; and clearly does not use TCP/IP packet transfers over the 802.11 network. That Eccles happens to teaches conventional bridging

between the cellular network and an IP network has no bearing on the claims of the case - there is no teaching in Eccles about using IP based packets within MAC layer of 802.11. That the Eccles patent contains terms relating to both IP and 802.11 is not sufficient reason for asserting that Eccles teaches the specific elements of Claim 1.

In support of the rejection a number of sections of Eccles are put forth, as follows.

Column 3, lines 14-25.

This section of Eccles describes the ability to establish connectivity between an 802.11 and a cellular network, and between a cellular network and the Internet. There is no teaching regarding using packets configured as TCP/IP packets over the 802.11 network and its different packet format. The fact that the same packets are not used in both is even clear from the abstract as previously mentioned: "Similarly, the network access point <u>can receive packets from the cellular network **and reformat them** for transmission over the 802.1 1 network</u>." Thereby, Eccles not only does not discuss direct bridging between IP and 802.11, it clearly recites conversion of the packets between the two formats, which is manifest teaching away from the objects and operating principles of the present invention.

Ergo, no teaching is found in this section of Eccles to support the rejection.

Column 6, lines 39-50.

This section of Eccles describes the Network Access Point (NAP) connecting between an 802.11 network and a cellular network. Apparently, the contention of the rejection is based on the statement; "*And the cellular network 64 can connection to one or more packet data networks, such as the Internet.*" Once again the examination attempts to distill down the recitations in Applicants claim. Applicant's claim is clearly not directed to patenting all forms of interconnection with an IP network. Applicant claims recite a particular form of data packet use within the 802.11 network; an aspect which is nowhere put forth for the Eccles reference.

MPEP 2142.02: DISTILLING THE INVENTION DOWN TO A "GIST" OR "THRUST" OF AN INVENTION DISREGARDS "AS A WHOLE" REQUIREMENT Distilling an invention down to the "gist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole". *Jones* v. *Hardy*, 727 F.2d 1524 220 USPQ 1021, 1026 (Fed. Cir. 1984) ("treating the advantage as the invention disregards statutory requirement that the invention be viewed 'as a whole' ").

Column 11, line 14 & Fig. 1:

This line of Eccles says that "*FIG. 5 is an exemplary protocol stack that the NAP 54 can use for data communications in a CDMA2000 cellular network*". First intractable problem is that <u>a connection between 802.11 and a cellular network is described</u>. Second intractable problem is that simply reciting the use of "*a protocol stack*" does not obviate the design of all systems which have a protocol stack which is configured in novel and unobvious ways. The above line is used to support using "TCP/IP data packet transfers over an 802.11 network", yet there is no discussion here at all bearing on the particular packet format in use. Again, examination has attempted to grossly distill down the claims of the instant application while misinterpreting the teachings of the cited reference.

In regards to FIG. 1 nothing is mentioned about its applicability. FIG. 1 of Eccles shows use of 802.11 to a NAP which interfaces to a cellular network, when then connects to the Internet. Applicant surmises that somehow the examiner contends that the mere inclusion of both an 802.11 network and an IP network (the Internet) on the same page thus supports a blanket rejection of anything involving TCP/IP and wireless 802.11, regardless of the specifics of the implementation.

Again, there is no support therein for the rejection.

The so-called support for the remaining aspects of the claim similarly attempt to distill down the claim elements while misrepresenting what is taught by the Eccles reference, wherein there is little point in expending additional textual bandwidth here. Nothing is put forth from the Eccles reference in regard to a specific configuration of the

MAC layer of 802.11 "*by formatting network packets for Internet Protocol (IP) transmission.*" Nothing from Eccles is put forth teaching changing the 802.11 packet configuration to that of an IP packet configuration. Still further, nothing is put forth in Eccles about then modifying that IP packet configuration by "*adding additional bytes for IEEE 802.11 transmission of Forward Error Correction (FEC).*" And even still further, there is nothing for using that configuration for "*checksums and performing partial packet retransmissions*", as would be required for the Eccles reference to support a rejection.

Eccles does not teach these aspects of the invention, yet that does not stop the rejection from attempting to distill down the claims to the simplistic concept of interconnection of IP and 802.11 and then interpreting the Eccles reference in that light.

Shortcomings of Tong Reference

As mentioned previously, the Tong reference was brought in support of the rejection for its teaching of "*partial packet retransmissions*".

Paragraphs [0007]-[0008] are put forth in support of the Tong reference. Yet, these two paragraphs (end of background and first paragraph of summary) only recite that something is needed to overcome the problems with SAW-type ARQ protocols, and that the present invention does so by puncturing sub-packets into packets in the sequence for recovering errors. The bearing of either of these has not been shown in relation to either the Eccles reference or the instant application. While it should be readily recognized that regardless, this has no bearing on the use of IP structured packets within the MAC layer of the 802.11 protocol, upon which an error correction with partial packet retransmissions are built.

Again, the support for the rejection in view reference, in this case the Tong reference, ignores the specific recitations of the claim and is based only on general concepts. Patents are not granted on "concepts" or "ideas", but on specific structures and implementations which differ in novel and unobvious ways from prior systems. Applicant is not attempting to patent all systems which use partial packet transmission,

but a specific "*apparatus for performing a Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfers over an IEEE 802.11 network*" which utilizes FEC, checksums, and partial packet retransmissions when sending TCP/IP data packets from within the MAC layer of the 802.11 network.

Nothing is put forth from the Tong reference regarding the use of 802.11, or using TCP/IP packet structures within the 802.11 MAC layer. Nothing is put forth from Tong regarding adding the FEC, checksum, and partial packet retransmission to the IP packet structures within an 802.11 transmission. The rejection is not supported by the references as all claim limitations are not taught.

> 2143.03 All Claim Limitations Must Be Taught or Suggested
>
> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Tong teaches a mechanism for "*puncturing*" packets and retransmitting bits of a retransmission by altering the parity bits as seen in FIG. 6, and similar bit stealing mechanisms.

Furthermore, combining Tong with Eccles can at best provide a means of using partial packet retransmission using punctured packets between the 802.11 network and the cellular network, or between the cellular network and an internet.

Other Shortcomings of the Rejection

According to the prior discussion it is seen that the support for the rejection fails to show that,

> "...the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification. *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000)" (MPEP § 2183 (A))

wherein no *Prima Facie* case of obviousness has been advanced.

As was also discussed in prior sections, the rejection makes conclusory statements while not providing any specific teachings shown from the cited references. As provided in M.P.E.P. § 2142, the Supreme Court in *KSR International Co. v. Teleflex Inc.* 82 USPQ2d 1385, 1396 (2007) specified that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. "[R]ejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn,* 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). Furthermore, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art" (*KSR*, page 14).

For example, in support of the 103(a) rejection, Page 4 of the Office Action merely asserts that it would have been obvious to combine Tong with Eccles to "*include a means for performing partial packet retransmissions, in order to provide an improved automatic repeat request (ARQ) based protocol that facilitates continuous data transmission while supporting retransmission of corrupted data as taught by Tong (see p. 1 [0007-0008]).*" Thus, the benefits or "advantages" of the modification (e.g. partial packet retransmission of corrupted data) is the only rationale provided in the Office Action in support of the instant rejection. Merely stating the benefit of the modification exists, as done above, does not provide the "articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness," required under *KSR*. By definition, every patentable invention must be "beneficial" – and *arguendo* every invention contemplates at least some new benefit(s) in arriving at the invention – certainly this does not render the benefit obvious or expected. Because every modification or element has a corresponding use or benefit, the above reasoning could

be applied to any improvement. It appears therefore that "hindsight construction" played a role in arriving at the present ground for rejection in the Office Action, which is impermissible in making a *prima facie* showing of obviousness.

According to M.P.E.P. 2142, "the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Because a *prima facie* conclusion of obviousness has not been provided in the present Office Action, Applicants respectfully request reconsideration and withdrawal of this ground for rejection as to Claim 43, and any additional remaining claims to the extent they may depend therefrom.

The rejection suffers from a number of additional shortcomings, including: different objects and operating principles, all claim limitations are not taught, element of prior art not present, rejection based only on similarity of inventive concept or idea, rejection sustained with mere conclusory statements, advantages cannot be disregarded, modification based on hindsight in view of applicant's teaching, new principle of operation utilized, solved a different problem, new and unobvious results, lack of specificity of suggestion to modify, "plain meaning" of recited elements ignored, elements in references are not equivalent, references do not add up to the invention, useless combination, no need of element within references, unsuggested combination, no motivation to combine, obvious to try is not a standard of obviousness, invention to be considered as a whole, reference teaches away from invention, wherein No *Prima Facie* Case of Obvious has been established.

It should be noted that the presence of ANY of the these shortcomings is sufficient to overcome the rejection, while the presence of ALL of these shortcomings is overwhelming evidence for patentability.

Amendment of Claim 1

In view of the many interpretive shortcomings of the rejection, Applicant has amended Claim 1, and the other independent claims, in an attempt to bring out this IP

packet structure use within the IEEE802.11 MAC layer with greater particularity in hopes of quelling future misunderstanding.

Therefore, as not all claim elements are taught in view of the combination of Eccles and Tong, in addition to numerous additional shortcomings of the rejection, Applicant respectfully requests that the rejection of Claim 1, and the claims that depend therefrom, be withdrawn and the instant application allowed to issue.

(b) <u>Claim 2</u>.   Independent Claim 2 is similar in many respects to Claim 1, while providing additional details about the use of the TCP/IP data packets over the 802.11 network.

The rejection of Claim 2 suffers from the same shortcomings as found with regard to Claim 1, as well as additional problems as it does not address the additional limitations found in Claim 2.

Again, the examination seeks to distill down the claim into being any form of communication between an 802.11 network and an IP network, which is not what the claim is succinctly directed at.

The preamble states "*An apparatus for performing Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfers over an IEEE 802.11 network.*" However, as discussed at length with regard to Claim 1, Eccles teaches communication between 802.11 and a cellular phone network which can then communicate with the Internet. No teachings are put forth from Eccles about the use of the IP packets within the MAC layer. And since there is no teaching of the IP packets being used within the 802.11 standard, then it is of little surprise that there are no "additional *bytes defined within the IEEE802.11 frame which are not utilized in IP protocol frames*" as recited in the Applicant's claim, but not discussed in relation to Eccles or Tong. As the shortcomings of Eccles are well know in relation to the discussion of Claim 1, we proceed to discuss other shortcomings of the rejection, in particular regarding the "combination" asserted with Tong.

Claim 2 provides additional detail about "partial packet retransmission", which is recited as "*performing partial packet retransmission by dividing each Internet Protocol (IP) packet into multiple data blocks and adding Forward Error Correction (FEC) or checksum information for the data blocks within extra bytes defined within the IEEE 802.11 frame which are not utilized in IP protocol frames, and retransmitting blocks by piggybacking them within said extra bytes within the IEEE 802.11 frame*".

In a combination with Tong, a completely different form of packet retransmission is put forth which uses "puncturing" of the packets. First, the claim limitations are ignored regarding the use of IP packets within the MAC layer of an 802.11, for which no teachings are put forth from the Tong reference. Thus, since it does not do this, it certainly cannot use the additional bytes created from this for retransmission in response to piggybacking these bytes within the 802.11 frame. Again, the rejection attempts to improperly distill down the claim into something which Tong teaches. The claim does not teach "puncturing", nor does Tong teach the form of piggybacking described, nor the use of the extra bytes provided by in view of the use of IP packet structures within the 802.11 packet space.

Accordingly, the cited references, either separately or in combination with one another and what is known in the art, do not teach all aspects recited in the claim. In addition, numerous additional shortcomings of the rejection exist in regard to attempts to distill the language of the claims to fit the teachings of the reference, using hindsight based on Applicant's own teachings, and so forth as brought out above.

Applicant has amended Claim 2 in a similar manner as Claim 1, toward attempting to prevent future misunderstandings with regard to claim interpretation.

Therefore, as no *Prima Facie* case of obviousness has been supported against Claim 2, Applicant respectfully requests that the rejection of Claim 2, and the claims that depend therefrom, be withdrawn and the claims allowed to issue.

(c) Claim 16. Independent Claim 16 is directed to "*A method of optimizing Transmission Control Protocol/Internet Protocol (TCP/IP) network data transfer over an*

IEEE 802.11 wireless network."

The rejection of Claim 16 suffers from the same shortcomings as found with regard to Claims 1-2, as well as additional problems as the rejection does not address additional limitations recited in Applicant's Claim 16.

The alleged support for the rejection similarly attempts to distill down the claim into being any sort of communication between an 802.11 network and an IP network, which is not what the claim is directed at as succinctly recited in the claim.

The preamble states "*A method of optimizing Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfer over an IEEE 802.11 network.*" However, as discussed at length with regard to Claims 1-2, Eccles teaches communication between 802.11 and a cellular phone network which can then communicate with the Internet. No teachings are put forth from Eccles about the use of IP packets within the MAC layer of 802.11. Ergo, as there is no teaching of the IP packets being used within the 802.11 standard, then it is of little surprise that there are no "*extra bytes of space*" as recited in the claim within Eccles or Tong, "*which are not available in the Maximum Transmission Unit (MTU) utilized in the Internet Protocol (IP)*", as recited in the claim.

As this has been discussed at large within Claim 1, we move on to other shortcomings of the rejection, in particular regarding the "combination" asserted with "Tong".

Claim 16 provides additional detail about "*partial packet retransmission*", which is recited as "*partially retransmitting untransmitted data blocks in said plurality of data blocks corresponding to the network packet frame by piggybacking them within extra bytes of space in a frame under the IEEE 802.11 wireless standard which are not available in the Maximum Transmission Unit (MTU) size utilized with the Internet Protocol (IP) protocol.*"

In a combination asserted from Eccles with Tong, a completely different form of packet retransmission is put forth by Tong using "*puncturing*" of packets - but of course

these would be the native packets as nothing is disclosed of using the smaller IP packets within the IEEE802.11. First, the claim limitations are ignored regarding the use of IP packets within the MAC layer of an 802.11, for which no teachings are put forth from the Tong reference. Thus, since Tong is not configured for using the IP packets within the 802.11 frames, it certainly cannot use the additional bytes created from this for retransmission in response to piggybacking these bytes within the 802.11 frame. Again, the rejection attempts to improperly distill down the claim into something which Tong teaches. Applicant's claim does not teach this "puncturing", nor does Tong teach the form of piggybacking described, nor the use of the extra bytes provided by in view of the use of IP packet structures within the 802.11 packet space.

Accordingly, the cited references, either separately or in combination with one another and what is known in the art, do not teach all aspects recited in the claim. In addition, numerous additional shortcomings of the rejection exist in regard to attempts to distill the language of the claims to fit the teachings of the reference, using hindsight based on Applicant's own teachings, and so forth as brought out above.

Applicant has amended Claim 16 in a similar manner as Claims 1-2, toward attempting to prevent future misunderstandings with regard to claim interpretation.

Therefore, as no *Prima Facie* case of obviousness has been supported against Claim 16, Applicant respectfully requests that the rejection of Claim 16, and the claims that depend therefrom, be withdrawn and the claims allowed to issue.

(d) <u>Claim 36</u>. Independent Claim 36 is directed to a wireless network between a network using TCP/IP and one according to IEEE802.11.

The rejection of Claim 36 suffers from the same basic shortcomings as found with regard to Claims 1-2. As discussed previously, Eccles is directed at bridging between an 802.11 network and a cellular network, and then from a cellular network and an internet, which obviously is not what is recited in Applicant claims. Furthermore, Eccles provides no support for the use of different data packet types within the MAC layer of the 802.11 network, such as and in particular the IP packets recited in Applicant

claims.

Claim 36 has been amended to recite the use of the IP packet size with utmost clarity, by reciting "*wherein the TCP/IP data packet is used within the larger IEEE 802.11 data packet frame of a media access communication (MAC) layer, leaving extra byte space within the IEEE802.11 data packet frame*."

Claim 36 discusses the optimization system "*utilizes ACK frames by the receiver to feedback information on unrecoverable or corrupted data blocks, wherein upon receipt the sender can limit transmission to a retransmission of unrecoverable or corrupted blocks without retransmitting the entire frame*", and that "*retransmitted unrecoverable or corrupted blocks are piggybacked in a subsequent frame by using extra byte space in the IEEE 802.11 frame which are not utilized in the IP frame.*"

A combination asserted with "Tong", as mentioned with regard to the other independent claims, is of no probative value toward supporting an obviousness rejection as there are a number of aspects of the claim which were not met by Eccles.

Another problem arises in that Tong does not describe anything which comports to the use of extra bytes within the frame because of the use of the IP packets, instead of conventional 802.11 packets, wherein extra bytes are created. Tong uses a "puncturing" mechanism to steal bits from the checksum, or other bit by bit mechanisms throughout the packet, which are not what is described by Applicant claims.

Accordingly, the cited references, either separately or in combination with one another and what is known in the art, do not teach all aspects recited in the claim. In addition, numerous additional shortcomings of the rejection exist in regard to attempts to distill the language of the claims to fit the teachings of the reference, using hindsight based on Applicant's own teachings, and so forth as brought out above.

Applicant has amended Claim 36 in a similar manner as Claims 1-2 and 16, toward attempting to prevent future misunderstandings with regard to claim interpretation.

Therefore, as no *Prima Facie* case of obviousness has been supported against Claim 36, Applicant respectfully requests that the rejection of Claim 36, and the claims that depend therefrom, be withdrawn and the claims allowed to issue.

(e)   Claims 4-7, 17-23, 39-45 and 48.   Dependent Claims 4-7, 17-23, 39-45 and 48 depend from independent claims whose patentability has been discussed, wherein these claims should be considered *a fortiori* allowable.

In addition, it should be appreciated that a number of these dependent claims recite aspects of the invention which provide additional patentable distinction over the cited references. For example, Claims 4-5 discuss use of the additional bytes created in response to using IP formatted packets in the 802.11, which are not discussed by the references; Claims 21-23 further discuss details of piggybacking onto the extra bytes, which are aspects not discussed by any of the references; and so forth.

Therefore, Applicant respectfully requests that the rejection of this group of dependent claims be withdrawn.

4.   Rejection of Claims 3, 10-13, 25-27, 29, 43, 47 and 49 under 35 U.S.C. § 103(a).

Claims 3, 10-13, 25-27, 29, 43, 47 and 49 were rejected under 35 U.S.C. 103(a) as being unpatentable over Eccles et al., (U.S. Patent No. 7,376,091) and Tong (U.S. Publication No. 2002/0150040) as applied to claims 1, 2, 16 and 41 above, and further in view of Pazos (U.S. Patent No. 7,315,515).

Dependent Claims 3, 10-13, 25-27, 29, 43, 47 and 49 depend from independent claims whose patentability has been discussed, wherein these claims should be considered *a fortiori* allowable.

In addition, it should be appreciated that a number of these dependent claims recite aspects of the invention which provide additional patentable distinction over the cited references.

Therefore, Applicant respectfully requests that the rejection of this group of dependent claims be withdrawn.

5.   Rejection of Claims 30-31 and 33-35 under 35 U.S.C. § 103(a).

Claims 30-31 and 33-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Eccles (U.S. Patent No. 7,376,091) in view of Tong (U.S. Publication No. 2002/10150040) and further in view of Pazos (U.S. Patent No. 7,315,515).

(a)   Claim 30.   Independent Claim 30 is directed to "*A network data transfer optimization system for optimizing network packet communications between two non-identical networks.*"

The rejection of Claim 30 suffers from the same basic shortcomings as found with regard to Claims 1-2. The support for this rejection similarly attempts to distill down the claim into being any sort of communication between an 802.11 network and an IP network, which is not what the claim is directed at as succinctly recited in the claim. In addition, many other shortcomings exist with the rejection.

The preamble states "*A method of optimizing Transmission Control Protocol/Internet Protocol (TCP/IP) data packet transfer over an IEEE 802.11 network.*" However, as discussed at length with regard to Claims 1-2, Eccles teaches communication between 802.11 and a cellular phone network which can then communicate with the Internet. No teachings are put forth from Eccles about changing the packet size in the MAC layer of the 802.11 for using the smaller IP packets, and using the extra bytes as recited in the claim. Ergo, as there is no teaching of the IP packets being used within the 802.11 standard, then it is of little surprise that there are no "*extra bytes of space*" as recited in Applicant's claim within either Eccles or Tong, "*which are not available in the Maximum Transmission Unit (MTU) utilized in the Internet Protocol (IP)*", as recited in the claim.

As this has been discussed at large within Claim 1, the "combination" asserted with "Tong" does not overcome these shortcomings of Eccles. Tong does not even describe a similar partial transmission scheme, as it uses a "puncture" mechanism which changes out bits in the checksum or other internals. Since Tong does not provide the extra bytes created by the use of IP packet structures, instead of 802.11, it does not

have them available for piggybacking the data as recited in Applicant claims. Thus, Tong provides no probative value in support of the rejection.

Accordingly, the cited references, either separately or in combination with one another and what is known in the art, do not teach all aspects recited in the claim. In addition, numerous additional shortcomings of the rejection exist in regard to attempts to distill the language of the claims to fit the teachings of the reference, using hindsight based on Applicant's own teachings, and so forth as brought out above.

Applicant has amended Claim 30 in a similar manner as Claims 1-2, 16 and 36 toward attempting to prevent future misunderstandings with regard to claim interpretation.

Therefore, as no *Prima Facie* case of obviousness has been supported against Claim 30, Applicant respectfully requests that the rejection of Claim 30, and the claims that depend therefrom, be withdrawn and the claims allowed to issue.

(b) <u>Claims 31 and 33-35</u>. Dependent Claims 31 and 33-35 depend from independent claims whose patentability has been discussed, wherein these claims should be considered *a fortiori* allowable.

In addition, it should be appreciated that a number of these dependent claims recite aspects of the invention which provide additional patentable distinction over the cited references.

Therefore, Applicant respectfully requests that the rejection of this group of dependent claims be withdrawn.

6. <u>Amendment of Claims 1, 2, 10, 16, 25, 30, 36, 40, and 48</u>.

<u>Claims 1, 2, 16, 40, and 48</u>. Claims 1, 2, 16, 40, and 48 have been amended according to Examiner request to replace the first Acronyms used for "IP", "TCP/IP", "FEC", "MTU" in each claim with a full recitation. Applicant has amended these claims to expand the acronyms.

<u>Claims 1, 16, 30, and 36</u>. Although each of independent Claims 1, 16, 30, and 36 describes the use of IP packets within the IEEE802.11 MAC layer, these claims have

been amended in view of the manner in which the claims were interpreted in support of the rejection, in hope of further clarifying the distinctions.

These claims have been amended to include the recitation *"wherein the IP data packet is used within the larger IEEE 802.11 data packet frame of a media access communication (MAC) layer, leaving additional bytes within the IEEE802.11 data packet frame;",* or similar, to assure understanding of where the additional bytes are taken from for use in partial packet retransmission. Support for the statement is found as a subset of Claim 40, which goes into detail not only about the structure, but about the sizing of the smaller IP packet structure in relation to the IEEE802.11 frame. Of course the above information is found throughout the specification.

Claim 36 has also been amended to correct the typographical error, by replacing "*bytes*" with "*byte*" in the last line.

Claim 10. Dependent Claim 10 has been amended to correct the antecedent claim reference in the preamble from Claim 2, to correctly indicate Claim 3.

Claim 25. Dependent Claim 25 has been amended to correct a typographical error, by adding a comment after the Claim reference in the preamble.

7.   Amendments Made Without Prejudice or Estoppel.

Notwithstanding the amendments made and accompanying traversing remarks provided above, Applicant has made these amendments in order to expedite allowance of the currently pending subject matter. However, Applicant does not acquiesce in the original grounds for rejection with respect to the original form of these claims. These amendments have been made without any prejudice, waiver, or estoppel, and without forfeiture or dedication to the public, with respect to the original subject matter of the claims as originally filed or in their form immediately preceding these amendments. Applicant reserves the right to pursue the original scope of these claims in the future, such as through continuation practice, for example.

8.   Request for Continued Examination (RCE).

An appropriate fee is enclosed for a RCE (Request for Continued Examination) of this application (See 37 CFR 1.114).

9.   Conclusion.

Based on the foregoing, Applicant respectfully requests that the various grounds for rejection in the Office Action be reconsidered and withdrawn with respect to the presently amended form of the claims, and that a Notice of Allowance be issued for the present application to pass to issuance.

In the event any further matters remain at issue with respect to the present application, Applicant respectfully requests that the Examiner please contact the undersigned below at the telephone number indicated in order to discuss such matter prior to the next action on the merits of this application.

Date: November 6, 2008   Respectfully submitted,

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